CULTURE OF RICE

Staff of Life of Large Portion of Human Race.

Demand for It Rapidly Increasing and Area for Growing Is Limited—One Important Thing Is Proper Drainage.

The following article, which will be of interest to both rice growers and those that live outside of rice-growing districts, was prepared by B. Irby for a recent meeting of the rice growers of Jefferson county, Texas:

Rice is the staff of life of a large part of the human race, especially of the class seeking a cheap, substantial food. When merely hulled and not polished it is a perfect food; that is to say, has all of the elements necessary to sustain life, and in proportions that are well balanced as a human food.

The polishing of rice makes it look better, keep better and hides the defective grains, but adds nothing to its value as a food, but, on the other hand, makes it less valuable, for when polished most of the nutriment has been removed, leaving practically nothing but carbohydrates.

The population of the United States is now about 90,000,000 and increasing at a very rapid rate. The demand for rice will increase enormously and the area for growing the crop is limited. Unlike wheat, oats, corn or barley, rice is profitably grown only in restricted localities.

In a general way a warm climate and low, flat land are necessary. The one important thing on a rice farm is drainage. It is more important than irrigation, as it is cheaper to not plant a crop than to make one and lose it.

There are two classes of rice, called upland and lowland, or rice that can be grown without irrigation and that which must have irrigation.

The upland rice can be grown in rows and cultivated as is corn or sorghum.

The water rice must be sown broadcast as wheat, or any other grain, and be kept dry for three or four weeks and then have the water turned on. Some prefer to turn on the water and allow it to stay a day or two, then draw it off for a few days, then turn it on, repeating the process two or three times. It is claimed that the rice forms better roots and stools or branches out better when treated thus. There are many varieties of rice in Japan, China and India, to say nothing of the other countries that produce rice. There are about 150 varieties in India, and the varieties in Japan and China number in the hundreds.

The Chinaman cultivates about one acre, the Japanese three acres, the Hindoo about the same, the South Carolinian 25 acres and the Texan 125 acres. The Asiatic work is nearly all done by hand. They even go so far as to transplant their rice from plant beds to the field. This not only insures a good even stand, but saves time, for when the rice crop is planted possibly the rice land has some other crop on it that has to be harvested before they can plant the rice. The Japanese and Chinese make use of their rice lands for growing crops for the purpose of benefiting other crops and helping the land by rotation. The Mexican rice growers follow the same practice with profit. The Japanese grow the soy or soja bean after the rice has been harvested. This is a leguminous crop, and not only furnishes rich, nutritious food for man or beast, but enriches the soil to a wonderful extent by developing nitrogen in the soil from the bacteria formed on the roots. The soja bean is a deep-rooted plant, and it pumps up from the subsoil potash and other mineral matter useful to the plant, and stores it on the surface, where the surface feeding rice plant can get it.

The Chinese, Japanese and Hindoos have worked their lands from time immemorial, and are still producing very heavy crops. They have learned to rotate and fertilize, a lesson for the American, who often cultivates a farm for a few years until he has impoverished it and poisoned it with red rice, and then moves on to a new piece of land and begins the process of ruin and destruction again.

We will fertilize the rice crops as do the Asiatics when land becomes dear and we learn more economy. It is generally conceded that it is only necessary to put on potash and phosphoric acid as a fertilizer. The nitrogen is not generally added, though it is reasonable to suppose that it is as necessary on a rice crop as it is on wheat or any other grain; however, no very extensive experiments have been tried in this country to prove this fact.

The rice farmer should be careful in buying his fertilizer to get one that contains sulphate of potash, as the other forms of potash absorb so much moisture in the damp climates where rice is grown that it is hard to get it through a drill or get it distributed. The common formula for Texas and Louisiana is 12 per cent. phosphoric acid and two per cent. potash, putting on about 150 to 200 pounds per acre, broadcast, with the fertilizer attachment, when the grain is drilled. The time will come when more will be put on to the acre or the percentage of available phosphoric acid and potash will be increased. The fertilizer will not benefit the rice as much as it would other crops, as it is so soon covered with water, and it is a recognized fact that fertilizers do not do so well in a very dry season or on lands covered with water.

CO-OPERATION IN ENGLAND

Carried On On Colossal Scale and Has Been Tremendous Success from the Very Beginning.

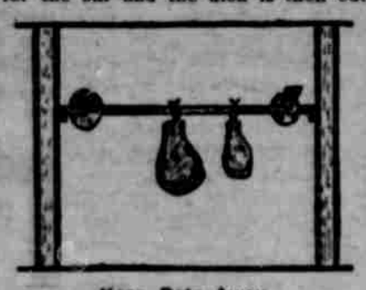
Contemplation of the magnitude of co-operative merchandising in England almost staggers one. Co-operative stores are counted by the thousands there, and each one is a unit in a stupendous whole. Years ago the then comparatively few local co-operative stores combined to establish a wholesale, from which they could draw supplies from first hands without paying outside intermediaries any profits. The movement was successful from the start, though the beginning was small. To-day that central establishment, owned absolutely by the local co-operative associations, is doing a business of over $300,000,000 a year, and much of the merchandise it sells is co-operatively manufactured!

This system virtually makes producer and consumer one, and the entire profits of the business go to each in proportion to his contribution to the business. The tremendous chasm between producer and consumer, which costs so much to cross in this country, is unknown in England. So are mail order houses—those monsters that terrify the souls of our country retailers—unknown there. There is no place for them among the common people of England, and as well managed co-operative stores increase here there will be less and less pickings for mail order houses. Every retailer who makes of his store a co-operative unit is doing more to embarrass big mail order houses than a score of retailers can do by denunciation of such houses, or trying to destroy them by legislation, and as a rule, retailers are quite as antagonistic to co-operative stores as to mail order houses. Yet one or the other will eventually do the major part of the distribution of merchandise.

KEEP RATS AWAY FROM MEAT

Arrangement of Timbers with Metal Disks at Each End Will Serve Purpose in Satisfactory Manner.

Those who have been bothered with rats and mice eating the salt or smoked meat will find the described device inexpensive and highly satisfactory. Two-inch timbers or poles are placed across the smokehouse in the usual manner and the hams and sides hung on them with strings. Round disks or pieces of galvanized iron or tin are cut about ten inches in diameter and placed on each end of the hanging bars as shown. A hole is made in the center of the tin for the bar and the disk is then cut



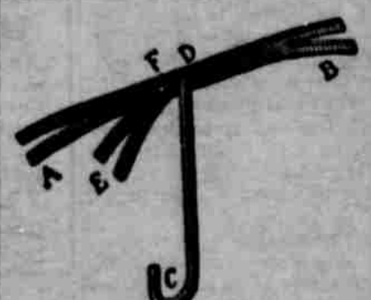
Keep Rats Away.

from one side as shown to the center. It is then placed over the bar and bent until slightly cone-shaped, with the rounding side away from the meat. Do not make the disks fast. Leave them loose but so arranged on the hanging bar that they will not fall. They should be placed about six inches from the ends of the bar. Rats or mice cannot pass the disks to reach the meat. Any old can will do for these disks.

HOOK FOR HOLDING FOWLS

Very Convenient Device to Be Used in Plucking and Is Cheap and Easy of Construction.

C. K. Graham of the Storrs station in Connecticut has devised a convenient hook for holding fowls for pluck



How Hook Is Made.

ing. The hook is illustrated herewith. The bar A-B is of quarter-inch iron one inch wide and 18 inches long, with a split three inches long and about three-quarters of an inch wide at each end. A five-inch arm E-F is riveted to A-B 1½ inches from D, making the distance from B to E about 15 inches and providing for fowls too small to spread from A to B. The staff C-D is of half-inch round iron 18 inches long with a shoulder at D and riveted on the under side of A-B, so that the latter will swing freely.

Celery Needs Water.

Celery needs lots of water. If water cannot be applied to the plants artificially, cultivate so as to constantly keep a dust mulch to hold the moisture. Do not cultivate celery plants when they are wet with dew or rain.

Good Water Necessary.

One of the most important considerations of the farmer should be the water supply, both for the household and for the animals.

PRACTICAL WINTER HOUSE FOR KEEPING POULTRY

In Constructing Care Should Be Taken to Select Well Drained Soil and Pay Attention to Ventilation.

In housing fowls in winter, care should be taken to have your building warm and well ventilated in such a manner as to prevent all direct drafts of air coming in contact with the fowls, and at the same time do away with the moisture and frost collecting upon the ceiling and walls of the house, writes A. E. Vandervart in Farm and Fireside. It is much better to have a cold, well ventilated house than to have one very warm and poorly ventilated, and your fowls will be much healthier and lay better in the former than in the latter.

In building a house, one should take into consideration the climatic conditions of the locality in which the house is to be built. A well-drained soil should be selected, and avoid building in a hollow where water will collect, if you do not want any trouble. Many are partial to the open-front, scratching-shed style of building, and while they are all right for certain locations, in this locality I have found the house described and illustrated to be preferable.

The house is built facing the south,

Elevation of Practical Poultry House.

and is 15 feet wide, 50 feet long, four and one-half feet high in back, six feet high in front and seven feet high at the highest point. These dimensions and the style of roof make a low house which is warmer than one higher, yet it is plenty high enough to work in.

The frame plates are made of two-by-fours and the sills and corner posts of four-by-fours. The outside is boarded as tightly as possible with hemlock boards, and a cheap grade of house-siding is used for the siding, with a good grade of tarred paper between the boards and the siding. For the roof, roofing-paper is used, and is put on in strips from the front to the back of the house.

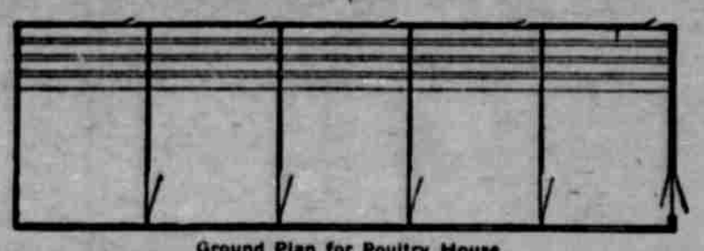
Five double-sash windows occupy about one-fourth of the front, and extend nearly the whole height of the front of the building, allowing the sun's rays to shine directly onto the floor of the house. Sun is an excellent tonic for the fowls, and should always be taken into consideration when constructing a poultry-house.

Four holes, two feet square, are cut near the top between the windows. These are covered with muslin, and used for ventilators. These ventilators, and opening the windows on pleasant days, form a perfect method of ventilation, and practically do away with all moisture and frost on the walls and ceilings of the building, and supply an abundance of pure air free from drafts.

The house is divided into five pens ten by fifteen feet. The partitions are boarded up for a distance of about two feet, and wire netting is used the rest of the way to the ceiling. The doors between each pen are three feet wide, and are covered with wire netting. The dropping-boards and nests occupy the north side of the building. The dropping-boards are three feet above the floor, and three and one-half feet wide, and extend the width of the pen (ten feet). The perches are made of two-by-twos, planed and with the edges rounded. These are six inches from the dropping-boards, and are hinged to the building so they can be raised and fastened when cleaning off the dropping-boards.

Under the dropping-boards are eight nests resting on a platform one foot below the dropping-boards. A hinged door occupies the front the these, from which the eggs are gathered. This arrangement of roosts and nests gives the fowls use of the entire floor-space. The water-fountains and grit-boxes are placed on the partition-boards.

The floor is of concrete, and constructed in the following manner: The space up to the bottom of the sills is filled with crushed stone. On this is spread a thin coat of cement, enough to make a smooth surface. On this is placed a layer of thick tarred paper and over this a layer of cement (three parts sand and one part cement). This makes and ideal floor for a poultry-house. It is wind and rat proof and the tarred paper keeps the moisture out. It is easily constructed, easily cleaned, and, above all, lasts a lifetime.



Ground Plan for Poultry House.

The yards are at the rear of the building, and are 70 feet long by ten feet wide, and in these are planted rows of plum trees. Connected with these yards is another large yard surrounding an orchard. Each pen is given this yard for half a day, which makes an excellent forage place for the fowls.

SEPARATED MILK FOR CALVES

Youngster That Sucks Cow Does Well Until Weaned—Sweet Skimmed Milk Makes Bone and Sinew.

There is no doubt but that calves do exceedingly well on separated milk. The calf that sucks the cow will do well until weaning time comes, but the calf that gets its warm, fresh, separated milk will flourish the whole year round. For the sake of a few more pounds of butter the calf is often starved to a gaunt, unsightly little dwarf and never comes to maturity

Fed on Separated Milk.

and is always poor property to its owner. By allowing it fresh, warm milk from the separator you will have a big, strong calf in such a condition that will give the best results for the extra care and labor, the same as other stock kept in a thriving condition. Sweet skimmed milk makes bone and sinew for the calf. We are looking after the calf that is to be raised to maturity and there are cheaper foods than 25-cent butter fat upon which to raise calves. That is, buy centrifugal cream separators, if you do not have one already, and feed your calves the milk as soon as run through the separator, while it yet contains the animal heat and in the condition just suited to the needs of the calf. We believe that every farmer who keeps from three to ten good cows and wishes to grow good calves will find it to his advantage to buy a good cream separator and use it intelligently.

COMMON SENSE WITH MEDICINE

In Treating Ills of Live Stock Judgment Must Be Mixed With the Drugs Administered.

In handling livestock and treating livestock ills, much common sense must be mixed with medicine. In fact, many minor animal ills may be cured without resorting to medicine.

The writer has a mare that became stiff and lame in one front leg last winter. We were told all sorts of things were the matter with her, and many remedies were prescribed. We had been away from home for a few weeks and found that the mare had lost the shoe from the lame foot and that she had been confined in her stall nearly all of the time.

To reduce soreness, the leg was bathed in a water solution of salt and vinegar, slightly warm. Each night and morning the leg and shoulder were given a good, brisk rubbing to stimulate good circulation of blood. The mare resented the treatment at first, but soon willingly permitted it and afterward seemed to enjoy it. The lameness and stiffness began to gradually disappear and she was practically well within two weeks. During this time she was worked lightly almost daily and allowed outside freedom when weather permitted. Keeping the blood flowing through exercise and rubbing effected the cure, we believe.

ORANGE BASIS OF THIS CAKE

Delicacy for Afternoon Tea Greatly Improved by the Addition of Royal Icing.

Four ounces of caster sugar, seven ounces of flour, one teaspoonful of cream of tartar, half a teaspoonful of carbonate of soda, two ounces of butter, two eggs, one gill of milk, the grated rinds of three oranges.

Cream the butter with half the sugar, beat in one egg, then the rest of the sugar and the other egg, then sift in gradually the flour, orange rind, cream of tartar and the soda, adding the milk as required. Butter a tin, line with paper, pour in the cake and bake for about half an hour. Cover with royal icing.

Royal icing is useful for a variety of cakes, and can be flavored and colored to taste. Put the white of an egg into a basin with a squeeze of lemon juice, and stir into it six ounces of icing sugar; work well with a wooden spoon till perfectly smooth. Spread this on your cake or biscuits, dipping your knife into boiling water frequently, so that the surface is smooth.

FOR JELLIED FRUIT SALAD

Delightful Confection on Warm Day—Many Varieties of Fruit May Be Used.

Two pounds mixed fresh fruits, the greater the variety the better, brown sugar, one wineglassful of sherry, one pint of lemon jelly.

Put the fruit into a basin, having previously peeled it where necessary, and cut all fruit like bananas, pears, peaches, oranges, etc., in slices. Sprinkle it with brown sugar, pour over the sherry and leave in a cool place. Take a pint of lemon jelly—there are many good kinds sold which only need to be dissolved for use. Let it stand till cold, but not set, then whisk it till it looks like snow. Put part of the fruit in a large bowl (stood on ice if posible), add a layer of jelly in rough heaps, then more fruit, and so on till all is used, leaving the whipped jelly on the top. This should be stood on ice till required.

Chicken Baked in Milk.

Prepare a chicken as though for roasting. Mix a dressing using crumbed bread, butter, salt and pepper, a cup of seeded raisins and sufficient sugar to make it moderately sweet. Stuff the chicken with this mixture, and if a little of it should be left, reserve it, to be added to the gravy when that is made. Place the chicken in a dripping pan. In the bottom of the pan put two or even three quarts of rich milk; cover the pan and bake the chicken slowly until it is very tender, being careful to turn and baste it as often as may be necessary. Thicken the gravy in the pan, seasoning it with salt and, if required, sugar to taste.

Spanish Catsup.

Peel and slice one-half gallon green cucumbers and slice enough cabbage to make one-half gallon. Sprinkle with salt and let all stand for six hours. Chop one dozen onions and let them stand in boiling water half an hour. Chop one quart green tomatoes, one pint string beans, one dozen ears green corn, scald and strain. Mix all the other ingredients together, then add two small cupfuls white mustard seed, one small cupful ground mustard, one pound sugar, three tablespoonfuls turmeric, two tablespoonfuls grated horseradish, three tablespoonfuls celery seed, two tablespoonfuls olive oil, one tablespoonful each mace, cayenne and cinnamon. Place in a jar, mix well and cover with boiling vinegar.

Eggs with Savory Sauce.

Four eggs (or more, according to your party), half a pint of good gravy, half an ounce of butter, half an ounce of flour, half a teaspoonful of tarragon vinegar, one teaspoonful each of chopped capers and parsley.

Poach the eggs nicely in little round tins for the purpose and serve them on pieces of buttered toast of the exact size. Now heat the gravy in a saucepan, thicken it with the butter worked into the flour, season with pepper, salt, the capers and chopped parsley, and, lastly, the tarragon vinegar, and boil up. It should be a thick brown gravy and very highly flavored. Pour round the eggs.

Ginger Cookies.

One cup of sugar, one cup of molasses, one cup butter, two eggs, one tablespoonful of ginger, one tablespoonful of soda dissolved in a quarter of a cup of boiling water, and a saltspoonful of salt. Mix and knead into a dough as stiff as is required to roll them out, then put away over night. In the morning roll out, and use a little flour if necessary, then bake in a good hot oven.

Kitchen Soap.

Take six pounds of grease, melted and strained, one can of potash dissolved in one quart of water, and wait until thoroughly cooled. Add five cents' worth of borax dissolved in one pint of water. Mix the three ingredients together and stir until it fudges, pour off in large dripping pan, and cut in about sixteen bars. The longer the soap stands the harder it becomes.

Egg in Mince Meat.

A bit of kitchen economy is that cold fried or scrambled eggs, which would seem to be no longer useful, may be chopped and mixed with mincemeat to the latter's improvement. A poached egg, too, that was not needed, may, if it is not broken, be returned to the water and boiled hard and used to garnish or mix with a salad.

DAINTIES FOR

CONFECTIONERY RECIPES OF REAL VALUE.

Cream Cake, with Its Filling of the Best—Vanilla the Basis of What Is Known as Mocha Cake.

Cream Cake.—One cupful [illegible] eggs, one-fourth cupful of [illegible] half cupful of lard, one cupful [illegible] cream, one-half teaspoonful [illegible] two cupfuls of flour, one heaping spoonful of baking powder, [illegible] of soda on end of spoon, and [illegible] to taste.

Cream filling: One cupful of [illegible] one egg, one and one-half cupfuls sweet milk, one teaspoonful of [illegible] one heaping teaspoonful of flour, sugar, flour and eggs, stir in [illegible] and boil until thick; spread between layers and ice with two tablespoonfuls of sweet milk thickened with powdered sugar.

Mocha Cake. — One cup [illegible] creamed with yolks of three eggs, [illegible] heaping cupful of flour with one teaspoonful of baking powder, one quarter cupful of tepid water, and lastly, the beaten whites of eggs. This cake requires much beating. Bake in eight-inch tin. When cool cut in 36 squares.

Frosting: Cream one cupful of butter and gradually add confectioners' sugar as much as it will take, one tablespoonful cream, one dessertspoonful vanilla. Blanch brown and chop fine one pound of almonds. Ice squares on all sides and roll in nuts.

Recipe for Two Cakes.—Two cakes may be made by using five eggs and the following recipes:

Cream together one cupful of sugar and one-half cupful of butter. Add one-half cupful of sweet milk, then two cupfuls of flour that has two teaspoonfuls of baking powder sifted into it. Last fold in the beaten whites of three eggs and stir well. Bake this in two layers.

Put aside the whites of two eggs for icing and use the five yolks you have for a simple gold cake. Use one-fourth cupful of milk, one cupful of flour, and one teaspoonful of baking powder. Stir ingredients together and bake in a loaf. There will be enough icing for both cakes.

Spice Cake.—One cupful of molasses, one-half cupful of butter and lard mixed, one egg, one cupful of boiling water, two teaspoonfuls of soda, two teaspoonfuls of cinnamon, one of cloves, one teaspoonful of ginger, one-half cupful of raisins, two and one-half cupfuls of flour.

Process: Cream the butter, lard and egg, add molasses. Add the spices and soda to the flour, mixing thoroughly. Mix wet and dry ingredients except water. Add water gradually, stirring constantly. Bake 15 or 20 minutes in moderate oven.

Peach Marmalade.

Pare, stone and weigh the fruit. Extract the kernels from one-fourth of the pits; cut them in small pieces and steep in one cupful of water for 15 minutes. Then strain and set away for use. Place the fruit in a preserving kettle and add three-fourths of a pound of granulated sugar for each pound of peaches. When well heated crush with a wooden potato masher. Boil for half an hour, stirring often, then add the water in which the kernels were steeped and the juice of one large lemon for each four pounds of fruit. Stir all together and cook slowly for half an hour longer, being very careful not to burn. When done put the marmalade in glasses or marmalade pots.

Creamed Cucumbers.

Peel two or three large cucumbers and cut very fine with a sharp knife or run through the coarsest knives of the meat chopper. Drain off liquid, but do not press.

Rub a bowl with a clove of garlic, put in minced cucumbers and season with cayenne pepper, black pepper, salt, a teaspoonful of onion juice and the strained juice of half a small lemon.

Chill all the ingredients thoroughly, and just before serving stir in half a cupful of thickly whipped cream.

This makes a nice sauce for serving with fish or is equally good put on the half shells. Serve one to each person and pass with soft-shell crabs or broiled lobster at a luncheon.

Green Tomato Mince Pies.

Four quarts of green tomatoes chopped, drain off the juice, cover with water and cook one-half hour; then drain again and add two pounds brown sugar, one pound seeded raisins, chop half of these; one cup suet, one tablespoon salt, one-half cup vinegar. Cook until thick; when cool add one teaspoon each cassia, cloves and one tablespoon grated nutmeg. These are dandy pies.

For Croup.

Lobelia is a sovereign remedy for croup. Get a small bottle of it and when a child awakes in the night with a dry, hoarse cough, which mothers who have croupy children soon learn to recognize, begin giving the lobelia in small doses until the child vomits. The druggist will tell you how to give it. Vomiting removes the mucus from the throat.

To Wash Clothes.

A good way to wash clothes is to wind them on a long board and scrub them with a scrubbing brush. You will find that in this way you keep them from getting tangled. It is so hard to wind them when you wash them in the tub.